- (iii) Calculating, measuring, and safely preparing patient or human research subject dosages;
- (iv) Using administrative controls to prevent a medical event involving the use of unsealed byproduct material;
- (v) Using procedures to contain spilled byproduct material safely, and using proper decontamination procedures; and
- (vi) Administering dosages to patients or human research subjects, that include at least 3 cases involving the parenteral administration, for which a written directive is required, of any beta emitter, or any photon-emitting radionuclide with a photon energy less than 150 keV and/or at least 3 cases involving the parenteral administration of any other radionuclide, for which a written directive is required; and
- (3) Has obtained written attestation that the individual has satisfactorily completed the requirements in paragraph (b) or (c) of this section, and has achieved a level of competency sufficient to function independently as an authorized user for the parenteral administration of unsealed byproduct material requiring a written directive. The written attestation must be signed by a preceptor authorized user who meets the requirements in §§ 35.57, 35.390, 35.396, or equivalent Agreement State requirements. A preceptor authorized user, who meets the requirements in §35.390, must have experience in administering dosages as specified in §§ 35.390(b)(1)(ii)(G)(3) and/or 35.390(b)(1)(ii)(G)(4).

 $[70~{\rm FR}~16365,~{\rm Mar}.~30,~2005,~{\rm as}$ amended at 71 FR 15010, Mar. 27, 2006; 74 FR 33906, July 14, 2009]

Subpart F-Manual Brachytherapy

§ 35.400 Use of sources for manual brachytherapy.

- A licensee shall use only brachytherapy sources for therapeutic medical uses:
- (a) As approved in the Sealed Source and Device Registry; or
- (b) In research in accordance with an active Investigational Device Exemption (IDE) application accepted by the FDA provided the requirements of §35.49(a) are met.

§35.404 Surveys after source implant and removal.

- (a) Immediately after implanting sources in a patient or a human research subject, the licensee shall make a survey to locate and account for all sources that have not been implanted.
- (b) Immediately after removing the last temporary implant source from a patient or a human research subject, the licensee shall make a survey of the patient or the human research subject with a radiation detection survey instrument to confirm that all sources have been removed.
- (c) A licensee shall retain a record of the surveys required by paragraphs (a) and (b) of this section in accordance with §35.2404.

§ 35.406 Brachytherapy sources accountability.

- (a) A licensee shall maintain accountability at all times for all brachytherapy sources in storage or
- (b) As soon as possible after removing sources from a patient or a human research subject, a licensee shall return brachytherapy sources to a secure storage area.
- (c) A licensee shall maintain a record of the brachytherapy source accountability in accordance with §35.2406.

§35.410 Safety instruction.

In addition to the requirements of §19.12 of this chapter,

- (a) The licensee shall provide radiation safety instruction, initially and at least annually, to personnel caring for patients or human research subjects who are receiving brachytherapy and cannot be released under §35.75. To satisfy this requirement, the instruction must be commensurate with the duties of the personnel and include the—
- (1) Size and appearance of the brachytherapy sources;
- (2) Safe handling and shielding instructions:
- (3) Patient or human research subject control;
- (4) Visitor control, including both:
- (i) Routine visitation of hospitalized individuals in accordance with §20.1301(a)(1) of this chapter; and